

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A dynamo-electric machine including a magnet for a magnetic field, comprising:

a tooth ~~opposing~~ disposed so as to oppose the magnet at a predetermined gap being laminated in parallel with a direction of magnetic flux of the magnet;

a coil having at least part of the tooth disposed therein; and

a yoke disposed so as to oppose the magnet and being laminated in a direction different from a direction of a layer of the tooth,

~~wherein the tooth is mounted to the yoke in such a manner that at least part thereof is inserted through the magnet-opposed surface of the yoke, and~~

~~the cross-sectional area of the tooth at the portion being inserted into the yoke, which is taken perpendicularly with respect to a line of magnetic force generated at the tooth when the coil, is energized is larger than the cross-sectional area of the portion of the teeth disposed inside the coil, which is taken perpendicularly with respect to the line of magnetic force~~
the yoke further includes an opening provided so as to face from a surface opposing the magnet toward an opposite surface, the tooth and the yoke are fixed to each other in a state in which at least part of the tooth is inserted into the opening and, in that a cross-sectional area perpendicular to a line of magnetic force of the tooth at a portion inserted into the opening when the coil is energized is larger than a cross-sectional area perpendicular to the line of magnetic force at a portion of the tooth stored in the coil.

2. (Currently amended) A ~~The~~ dynamo-electric machine according to Claim 1, wherein the tooth is formed by laminating a plurality of steel plates each ~~having the~~ including a first portion to be inserted into the yoke opening and the a second portion to be disposed within

in the coil, molded integrally with each other, and and a third portion to connect the first and second portions,

the width of the each steel plate at the portion to be inserted into the yoke when viewed in the direction of lamination is larger than the portion to be disposed within the coil when viewed in the direction of lamination and in that a length of the first portion in a direction perpendicular to the magnetic flux of the magnet is longer than a length of the second portion perpendicular to the magnetic flux of the magnet.

3. (Currently amended) A The dynamo-electric machine according to Claim 1 ~~or 2~~, wherein ~~the~~ a plurality of teeth are provided, and the plurality of teeth are mounted to the yoke in such a manner that state in which the lines of magnetic force generated at ~~the~~ respective portions of the plurality of teeth ~~to be disposed~~ stored within the coils when the coil is energized are substantially extend in parallel with each other.

4. (Currently amended) A The dynamo-electric machine according to ~~any one of~~ Claims 1 to 3, wherein the cross-sectional area of the perpendicular to the line of magnetic force generated at the plurality of teeth at the magnet-opposed end portion of the tooth ~~opposing which opposes~~ the magnet, ~~which is taken perpendicularly with respect to the line of magnetic force generated at the tooth when the coil is energized;~~ is smaller than the cross-sectional area of the ~~portion to be disposed within the coil, which is taken perpendicularly with respect to~~ perpendicular to the line of magnetic force generated at the portion to be at the plurality of teeth disposed ~~within~~ in the coil.

5. (Currently amended) A The dynamo-electric machine according to Claim 4, wherein ~~the~~ a plurality of coils are provided; and the plurality of teeth are ~~disposed inside~~ at least partly stored within the plurality of coils ~~at least partly~~, and

the plurality of coils are integrally molded ~~in such a manner~~ so that the lines of magnetic force generated at the respective portions of the plurality of teeth ~~disposed within the respective~~ stored in the coils are extend substantially parallel with each other when the plurality of coils are energized.

6. (Currently amended) A The dynamo-electric machine according to Claim 5, wherein the magnet-opposed end portions of the plurality of teeth ~~fac~~ing the opposing respective magnets ~~are located~~ disposed outside the plurality of coils,

a plurality of cores ~~are disposed in the a~~ vicinity of the magnet-opposed end portions of the plurality of teeth opposing the respective magnets are provided, and the plurality of cores and the plurality of coils are integrally molded.

7. (Currently amended) A dynamo-electric machine having a magnet for a magnetic field, comprising:

a tooth ~~opposing~~ disposed so as to oppose the magnet at a predetermined gap; and a coil having at least part of the tooth disposed therein,

wherein ~~the a cross-sectional area of the magnet-opposed end portion of the tooth opposing the magnet, which is taken perpendicularly with respect perpendicular~~ a magnet-opposed end portion of the tooth opposing the magnet is smaller than the cross-sectional area of the portion to be disposed within the coil, which is taken perpendicularly with respect perpendicular to a line of magnetic force generated at ~~the tooth when the coil, is energized~~ a portion of the tooth to be disposed within the coil when the coil is energized.

8. (Currently amended) A The dynamo-electric machine according to Claim 7, further comprising:

a yoke to which the tooth is to be fixed;

wherein ~~the a plurality of teeth and cores are provided, respectively, and the plurality of~~ at least part of respective teeth are disposed at least partly within the plurality of coils, stored within corresponding coils, respectively, and

~~a yoke having the plurality of teeth mounted thereon~~ the teeth are fixed to the yoke so that the lines of magnetic force generated at the portions of the ~~plurality of~~ respective teeth ~~provided within stored in~~ the coils respectively are extend substantially parallel with each other ~~is provided~~ when the coils are energized, and

the ~~plurality of~~ respective coils are integrally molded ~~in a state in which so that~~
the lines of magnetic force generated at the portions of the ~~plurality of~~ respective teeth ~~provided~~
~~within the~~ stored in respective coils ~~respectively are~~ extend substantially in parallel with each
other.

9. (Currently amended) A The dynamo-electric machine according to Claim 8,
further comprising:

a plurality of cores disposed in the vicinity of the magnet-opposed end portion opposing
respective magnets of the plurality of teeth, wherein the magnet-opposed end portions of the
plurality of teeth facing opposing the magnets are ~~located~~ disposed outside the respective
plurality of coils, and

~~a plurality of cores are disposed in the vicinity of the magnet-opposed end~~
~~portions of the plurality of teeth opposing the magnet, and~~

wherein the plurality of cores and the plurality of coils are integrally molded.

10. (Currently amended) A The dynamo-electric machine according to Claim 8 ~~or 9~~,
wherein the ~~plurality of teeth are mounted to the yoke in a state in which at least parts thereof are~~
~~inserted into the yoke through the magnet-opposed surface of the yoke, yoke is provided with~~
openings formed from a surface opposing the magnet toward the other surface, at least part of the
respective teeth is fixed to the opening; and

the cross-sectional areas of the respective teeth ~~at the portions being inserted into~~
~~the yoke, which are taken perpendicularly with respect~~ perpendicular to the lines of magnetic
force generated at the ~~respective teeth when the respective coils are energized, are larger than~~
disposed inside the opening is larger than the cross-sectional area ~~of the portions of the~~
~~respective teeth disposed inside the respective coils, which is taken perpendicularly with respect~~
~~to the lines of magnetic force~~ perpendicular to the lines of magnetic force at portions of the teeth
stored within respective coils when the respective coils are energized.

11. (New) A dynamo-electric machine, comprising:

a yoke having an opening provided so as to face from a surface opposing a magnet toward an opposite surface, the yoke and a tooth are fixed to each other in a state in which at least part of the tooth is inserted into the opening; and

a cross-sectional area perpendicular to a line of magnetic force of the tooth at a portion inserted into the opening when a coil is energized is larger than a cross-sectional area perpendicular to the line of magnetic force at a portion of the tooth stored in the coil.

12. (New) The dynamo-electric machine according to claim 11, further comprising a magnetic for a magnetic field.

13. (New) The dynamo-electric machine according to claim 12, wherein the tooth is laminated in parallel with a direction of magnetic flux of the magnet.

14. (New) The dynamo-electric machine according to claim 11, wherein the yoke is laminated in a direction different from a direction of a layer of the tooth.

15. (New) The dynamo-electric machine according to Claim 13, wherein the tooth is formed by laminating a plurality of steel plates each including a first portion to be inserted into the opening and a second portion to be disposed in the coil, and a third portion to connect the first and second portions, and in that a length of the first portion in a direction perpendicular to the magnetic flux of the magnet is longer than a length of the second portion perpendicular to the magnetic flux of the magnet.

16. (New) The dynamo-electric machine according to Claim 13, wherein a plurality of teeth are provided, and the plurality of teeth are mounted to the yoke in a state in which the lines of magnetic force generated at respective portions of the plurality of teeth stored within coils when the coil is energized extend in parallel with each other.

17. (New) The dynamo-electric machine according to Claim 13, wherein the cross-sectional area perpendicular to the line of magnetic force generated at the plurality of teeth at the

magnet-opposed end portion of the tooth which opposes the magnet when the coil is energized is smaller than the cross-sectional area perpendicular to the line of magnetic force at the plurality of teeth disposed in the coil.

18. (New) The dynamo-electric machine according to Claim 1, wherein the magnetic field is in a cylindrical shape.

19. (New) The dynamo-electric machine according to Claim 7, wherein the magnetic field is in a cylindrical shape.

20. (New) The dynamo-electric machine according to Claim 13, wherein the magnetic field is in a cylindrical shape.